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Indian Standard

SPECIFICATION FOR U-TYPE CLAMPS

(Second Revision)

1. Scope — Specifies the dimensions and materials for two types of U-type clamps used in holding work pieces in place when they are being machined.

2. Types

Type A — U-Type clamps without finger.

Type B — U-Type clamps with round finger.

3. Dimensions

- 3.1 Dimensions for U-type clamps, Type A shall be as given in Table 1.
- 3.2 Dimensions for U-type clamps, Type B shall be as given in Table 2.
- **4.** Designation A U-type clamp of Type A having d=14 mm and l=125 mm shall be designated as:

U-Type Clamp A 14X125 IS: 4293

- 5. Material Steel suitably hardened and tempered to a tensile strength of 750 to 850 N/mm².
- 6. Finish The U-type clamps shall be free from cracks, burrs, pits and other defects. These shall also be free from sharp corners.

7. Preservation and Packing

- 7.1 A suitable anti-corrosive surface treatment shall be given to U-type clamps.
- 7.2 The U-type clamps shall be packed in accordance with best trade practice.

8. Marking

- 8.1 The U-type clamps shall be marked at an appropriate place with the designation and manufacturer's name or trade-mark.
- 8.2 ISI Certification Marking Details avialable with the Indian Standards Institution.

Adopted 26 March 1984

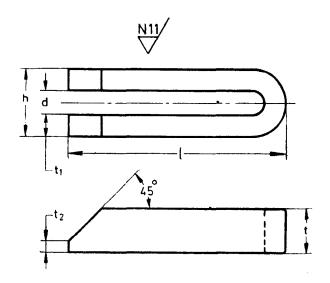
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TABLE 1 DIMENSIONS FOR U-TYPE CLAMPS, TYPE A

(Clauses 2 and 3.1)

All dimensions in millimetres.



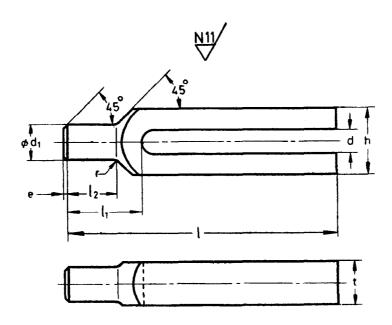
| d H13 | 1 | t | t ₁ | t ₂ | h approx | For Screw Size |
|----------|-----------------------|----------|----------------|----------------|-------------|-------------------|
| 6.6 | 60 | 12 | 6 | 3 | 19 | M 6 |
| 9 | 80 | 15 | 8 | 4 | 25 | M 8 |
| 11 | 100 | 20 | 10 | 5 | 31 | M10 |
| 14 | 125 (160) (200) | 25 | 12 | 6 | 38 | M12 |
| 18 | 160 (200) (250) | 30 40 | 15 | 8 10 | 48 | M 16 |
| 22 | 200 (250) (315) | 40 | 15 | 10 | 52 62 | M20 |
| 26 | (200) 250 (315) | 40 | 20 | 10 | 66 | M24 |
| 33 | (250) 315 (400) | 50 | 20 | 12 | 74 | M30 |

Note 1 — Values given within brackets are non-preferred.

Note 2 — Dimensional deviation for untoleranced dimensions: Coarse class according to IS: 2102 (Part 1)-1980 'General tolerances for dimensions and form and position: Part 1 General tolerances for linear and angular dimensions (second revision)'.

TABLE 2 DIMENSIONS FOR U-TYPE CLAMPS, TYPE B (Clauses 2 and 3.2)

All dimensions in millimetres.



| d H13 | d_1 | е | t | 1 | 1, | 12 | r | h | For Screw Size |
|----------|-------|------------------|----|--------------|----|----|-----|----|-------------------|
| 6.6 | 12 | , | 15 | 80 | 28 | 18 | | 25 | M 6 |
| 9 | 16 | 1.0 | 20 | 100 | 30 | 24 | 2.5 | 30 | M 8 |
| 11 | 11 10 | | | 125 | 36 | 24 | } | 30 | M10 |
| 14 | 20 | 1 [.] 5 | 25 | 160 (200) | 45 | 30 | 5.0 | 40 | M12 |
| 18 | 24 | 1'5 | 30 | 200 (250) | 55 | 36 | 5.0 | 50 | M16 |
| 22 | 30 | 2.0 | 40 | 250 (315) | 65 | 45 | 5.0 | 60 | M20 |
| 26 | 38 | 2.0 | 40 | (250) 315 | 80 | 56 | 5.0 | 70 | M24 |
| 33 | 45 | 2.0 | 50 | (315) | 85 | 56 | 5.0 | 80 | M30 |

Note 1 - Values given within brackets are non-perferred.

Note 2 — Dimensional deviation for untoleranced dimensions: Coarse class according to IS: 2102 (Part 1)-1980.

EXPLANATORY NOTE

This standard was first revised in 1975. The committee responsible for formulation of this standard decided to revise the same again to bring it in line with other standards on clamps, which are also being revised in respect of materials, tolerance, roughness values and rationalization of sizes.